

ABSTRACT

~~Summary~~

38 Subst The present invention pertains to structures of light guiding blinds including the related production processes of micro structuring. The invention refers to light guiding blinds having an at least partly toothed upper side for deflecting daylight in the blind portion disposed towards the irradiation area, the individual teeth showing with one side towards sun incidence and with the reverse side towards the interior space. The invention is characterized in that the tooth sides showing towards sun incidence have an angle of inclination β essentially smaller in the area of the irradiation cross section and larger at a larger distance from the irradiation cross section, and the angles of inclination β increase following a concave curve path (47) increasingly ascending from the irradiation area towards the reflection area, and at the upper side of light guiding blinds (42, 51) retro-reflected radiation (82) is concentrated and a concentration zone (46, 53) is formed near irradiation cross section (44) and the concentration zone is disposed either in front of blind (42) in the irradiation cross section and/or on the underside of upper blind (52) behind the irradiation cross section, and on the upper side of a light guiding blind (51, 41) light radiation may be reflected at the individual teeth at an angle $\alpha_R < \alpha_S$.

The invention refers furthermore to a process for the production of the light guiding prismatic surfaces in a rotary process, wherein a pre-material is fed through a roller pair having a structured surface. Surface molding is made by means of a sol-gel coating into which either through a rotary embossing roller a prismatic surface is embossed or through a rotary printing roller a prismatic surface is imprinted, and the sol gel, either during or immediately after the embossing or imprinting, receives at least an initial curing by being fed electromagnetic irradiation and/or electronic bombardment.